IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Docket No.: PF146P1D4

Hudson et al.

Application No.: Not Yet Assigned

Art Unit: N/A

Filed: Concurrently Herewith

Examiner: Not Yet Assigned

For: Human Choline Acetyltransferase

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure imposed by 37 C.F.R. § 1.56 to inform the Patent and Trademark Office of all references coming to the attention of each individual associated with the filing or prosecution of the subject application, which are or may be material to the patentability of a claim of the subject application, Attorney for Applicants hereby directs the Examiner's attention to references A-W listed on the attached Form PTO/SB/08.

Copies of references A-W were submitted by Applicants or cited by the Examiner in connection with U.S. Application Nos. 08/464,601, filed June 5, 1995, 09/210,993, filed December 15, 1998, 09/939,573, filed August 28, 2001, and 10/177,158, filed June 24, 2002, to which the instant application claims priority under 35 U.S.C. § 120. Pursuant to 37 C.F.R. § 1.98(d), the Examiner is directed to the files of U.S. Application Nos. 08/464,601, 09/210,993, 09/939,573, and 10/177,158 for copies of references A-W.

The listed references are presented so that the Patent and Trademark Office can determine any materiality thereof to the claimed invention. See 37 C.F.R. § 1.104(a) concerning the Examiner's duty to consider and use any such information. Applicants respectfully request that the Examiner make the listed references of record in the file history of the application, and consider the information contained therein during the prosecution of this application.

Identification of the listed references is not to be construed an admission of any individual associated with the filing or prosecution of the subject application that such references are available as "prior art" against the subject application. Furthermore, Applicants

do not waive any rights to take appropriate action to establish patentability over any of the listed documents should they be applied as references against the claims of the subject application.

Pursuant to 37 C.F.R. § 1.97(b), this Information Disclosure Statement is being filed before the mailing of a first Office Action on the merits. Accordingly, no fee is believed due. However, should the Patent Office determine otherwise, please charge the required fee to our Deposit Account No. 08-3425.

Dated: 8-29-03

Respectfully submitted,

Melissa J. Pytel

Registration No.: 41,512

HUMAN GENOME SCIENCES, INC.

Docket No.: PF146P1D4

9410 Key West Avenue Rockville, Maryland 20850

(301) 610-5764

KKH/MJP/FR/ba

PTC/SB/08A (10-01)
Approved for use through 10/31/2002.OMB 0651-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Cubr	stitute for form 1449A/F	210		Complete if Known		
Subs	stitute for form 1449A/F	10		Application Number	Not Yet Assigned	
IN	IFORMATIO	ON DIS	CLOSURE	Filing Date	Concurrently Herewith	
	•		PPLICANT	First Named Inventor	Peter L. Hudson	
Ŭ	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Art Unit	N/A	
	(use as many	/ sheets as r	ecessary)	Examiner Name	Not Yet Assigned	
Sheet	1	of	3	Attorney Docket Number	PF146P1D4	

	-		U.S. PAT	ENT DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	Α	5,278,045	01-11-1994	Du Pont Merck Pharmaceutical Co.	

		FOREIG	GN PATENT D	OCUMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ^s -Number ^s -Kind Code ^s (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	ť

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

Examiner	Date	
Signature	Considered	

¹ Applicant's unique citation designation number (optional). ² See attached Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the application number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (10-01)

Approved for use through 10/31/2002.OMB 0651-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Sub	stitute for form 1449A/PTO			Complete if Known		
Sub	Sinute 10/10/11/14-07-07-10			Application Number	Not Yet Assigned	
l in	NFORMATION	1 DI	SCLOSURE	Filing Date	Concurrently Herewith	
S	TATEMENT E	3Y /	APPLICANT	First Named Inventor	Peter L. Hudson	
			, _, ,	Art Unit	N/A	
	(use as many she	eets as	necessary)	Examiner Name	Not Yet Assigned	
Sheet	2	of	3	Attorney Docket Number	PF146P1D4	

		OTHER - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	В	MCGEER et al., "Choline Acetyltransferase: Purification and	
		Immunohistochemical Localization," <i>Life Sciences</i> , 34:2319-2338 (1984).	
	C	STRAUSS et al., "Cloning of a Human Choline Acetyltransferase cDNA,"	1
	<u> </u>	Soc. for Neuroscience Abstracts, 11(2):1114 (1985).	
	D	HERSH et al., Isolation of a Genomic Clone of Human Choline	
		Acetyltransferase, Klinische Pharmakologie, 2:15-19 (1989).	
į	E	SALVATERRA et al., "Molecular Biology and Neurobiology of Choline Acetyltransferase," <i>Mol. Neurobiol.</i> , 1(3):247-280 (1987).	
	F	OSTERMANN-LATIF et al., "Characterization of Mono- and Polyclonal Antibodies Against Highly Purified Choline Acetyltransferase: A Monoclonal Antibody Shows Reactivity in Human Brain," <i>J. Neurochem.</i> , 58:1060-1065 (1992).	
	G	ROSKOSKI, JR. et al., "Human Brain and Placental Choline Acetyltransferase: Purification and Properties," <i>Biochemistry</i> , 14(23):5105-5110 (1975).	
	Н	ODA et al., "A complementary DNA for human choline acetyltransferase induces two forms of enzyme with different molecular weights in cultured cells," <i>Mol. Brain Res.</i> , 16:287-294 (1992).	
	1	LORENZI et al., Two mRNAs Are Transcribed from the Human Gene for Choline Acetyltransferase," DNA and Cell Biology, 11(8):593-603 (1992).	
	J	MALLET et al., "Choline acetyltransferase: a molecular genetic approach," Prog. Brain Res., 84:3-10 (1990).	
	K	FANN et al., "A novel approach to screen for cytokine effects on neuronal gene expression," <i>J. Neurochem.</i> , 61(4):1349-1355 (Oct. 1993).	
	L	LI et al., "Cholinergic Neuron-Specific Expression of the Human Choline Acetyltransferase Gene Is Controlled by Silencer Elements", <i>J. Neurochem.</i> , 61:748-751 (1993).	
	М	BERRARD et al., "Molecular Genetic Approach to the Study of Mammalian Choline Acetyltransferase", <i>Brain Res. Bull.</i> , 22:147-153 (1989).	
	N	CORTI et al., "Molecular Cloning of cDNAs Encoding Human Carnitine Acetyltransferase and Mapping of the Corresponding Gene to Chromosome 9q34.1," <i>Genomics</i> , 23(1):94-99 (Sept. 1, 1994).	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

^{&#}x27;Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

Examiner	Date	
Signature	Considered	
- I.a. I.a. I		

PTO/SB/08A (10-01)

Approved for use through 10/31/2002.OMB 0651-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Sut	ostitute for form 1449A/PTO			Complete if Known		
				Application Number	Not Yet Assigned	
II.	VEORMATION	1 DI	SCLOSURE	Filing Date	Concurrently Herewith	
S	STATEMENT B	3Y /	APPLICANT	First Named Inventor	Peter L. Hudson	
				Art Unit	N/A	
	(use as many sho	eets as	necessary)	Examiner Name	Not Yet Assigned	
Sheet	3	of	3	Attorney Docket Number	PF146P1D4	

0	GenBank Accession No. X78706, CORTI et al., "H.sapiens mRNA for carnitine acetyltransferase," April 8, 1994.
Р	ESSER et al., "Cloning, Sequencing, and Expression of cDNA Encoding Rat Liver Carnitine Palmitoyltransferase I - Direct Evidence that a Single Polypeptide is Involved in Inhibitor Interaction and Catalytic Function," <i>J. Biol. Chem.</i> , 268(8):5817-5822 (Mar. 15, 1993).
Q	GenBank Accession No. A55720, CORTI et al., "carnitine O-acetyltransferase (EC 2.3.1.7) precursor, mitochondrial - human," March 23, 1995.
R	GenBank Accession No.H15198, HILLIER et al., "ym30c04.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:49788 5' similar to gb:S56138 CHOLINE O-ACETYLTRANSFERASE (HUMAN), mRNA sequence," June 27, 1995.
S	GenBank Accession No. R99408, HILLIER et al., "yq71g08.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:201278 5' similar to SP:CLAT_HUMAN P28329 CHOLINE O-ACETYLTRANSFERASE, mRNA sequence," September 14, 1995.
Т	GenBank Accession No. R73196, HILLIER et al., "yj91e06.r1 Soares breast 2NbHBst Homo sapiens cDNA clone IMAGE:156130 5' similar to SP:CLAT_HUMAN P28329 CHOLINE O-ACETYLTRANSFERASE, mRNA sequence," June 2, 1995.
U	GenBank Accession No. T71117, HILLIER et al., "yc50g07.r1 Stratagene liver (#937224) Homo sapiens cDNA clone IMAGE:84156 5' similar to SP:CLAT_HUMAN P28329 CHOLINE O-ACETYLTRANSFERASE, mRNA sequence," March 1, 1995.
V	GenBank Accession No. R08221, HILLIER et al., "yf18b06.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:127187 5' similar to gb:S56138 CHOLINE O-ACETYLTRANSFERASE (HUMAN), mRNA sequence," April 5, 1995.
W	GenBank Accession No. R11960, HILLIER et al., "yf54f05.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:25856 5' similar to SP:CLAT_DROME P07668 CHOLINE O-ACETYLTRANSFERASE, mRNA sequence," April 11, 1995.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

^{&#}x27;Applicant's unique citation designation number (optional). 'Applicant is to place a check mark here if English language Translation is attached.

Examiner I	Date
Signature	Considered
	00/10/00/00